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EXAMINER

KHANNA, MADHU

ART UNIT	PAPER NUMBER
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2109

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/724,589

Applicant(s)

HEINTZ, TIMOTHY JAMES

Examiner

Madhu Khanna

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 4/14/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☒ Claim(s) 2-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/14/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08).  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. An examination of this application reveals that applicant is unfamiliar with patent prosecution procedure. While an inventor may prosecute the application, lack of skill in this field usually acts as a liability in affording the maximum protection for the invention disclosed. Applicant is advised to secure the services of a registered patent attorney or agent to prosecute the application, since the value of a patent is largely dependent upon skilled preparation and prosecution. The Office cannot aid in selecting an attorney or agent.

A listing of registered patent attorneys and agents is available on the USPTO Internet web site <http://www.uspto.gov> in the Site Index under "Attorney and Agent Roster." Applicants may also obtain a list of registered patent attorneys and agents located in their area by writing to the Mail Stop OED, Director of the U. S. Patent and Trademark Office, PO Box 1450, Alexandria, VA 22313-1450

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

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- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A

"Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. It is noted that this application claims the benefit of U.S. provisional application No. 60/426,767, which neither discloses the same inventor(s), nor the same subject matter. It is therefor assumed, for the purposes of this examination, that applicant is intending to claim the benefit of U.S. provisional application No. 60/428,767.

4. This application is claiming the benefit of provisional application No. 60/428,767 under 35 U.S.C. 119(e). However, this application was not filed within twelve months from the filing date of the provisional application, and there is no indication of an intermediate nonprovisional application that is directly claiming the benefit of the provisional application and filed within 12 months of the filing date of the provisional application.

Note: If the day that is 12 months after the filing date of the provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, the nonprovisional application claiming the benefit of the provisional application may be filed on the next succeeding business day.

Applicant is required to delete the reference to the prior-filed provisional application from the first sentence(s) of the specification or the application data sheet, depending on where the reference was originally submitted, unless applicant can establish that this application, or an intermediate nonprovisional application, was filed within 12 months of the filing date of the provisional application.

5. The use of the trademarks JavaSpaces™, Java RMI Registry™ and Java Messaging Services™ have been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

6. The abstract of the disclosure is objected to because the abstract should be limited to a single paragraph. Further, the abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). Correction is required. See MPEP § 608.01(b).

7. The drawings are objected to because the following errors are apparent. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be

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canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters designate different parts:

"6" has been used to designate both Message Handling Subsystem in FIG. 1 and External Message Handling Systems in FIG. 11,

"7" has been used to designate both External Message Handling Systems in FIG. 1 and External Services in FIG. 6,

"50" has been used to designate both Request for Agent in FIG. 4 and Pause for set Wait Interval in FIG. 5,

"74" has been used to designate both Agent Naming Service in FIG. 2 and Transport System in FIG. 6,

"77" has been used to designate both Agent Discovery Service in FIG. 2 and Message Receiver Implementation n in FIG. 6,

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"93" has been used to designate both Service Factory Map in FIG. 7 and Construct and Add Factory in FIG. 8,

"94" has been used to designate both Construct and Add Factory in FIG. 7 and Factory Factory Map in FIG. 8,

"263" has been used to designate both Platform in FIG. 21 and Create New in FIG. 21,

"321" has been used to designate both Rules tab in FIG. 25 and Name is FIG. 26,

"322" has been used to designate both Rule Name FIG. 25 and Description FIG 26,

"323" has been used to designate both New Rule Name in FIG. 25 and Value in FIG. 26,

"324" has been used to designate both Remove Rule Name in FIG. 25 and selection button in FIG. 26,

"327" has been used to designate both New Triggers in FIG. 25 and Operator in FIG. 27,

"328" has been used to designate both Edit Triggers in FIG. 25 and Accept in FIG. 26,

"329" has been used to designate both Remove Triggers in FIG. 25 and Cancel in FIG. 26,

"332" has been used to designate both Tasks in FIG. 25 and New Predicate in FIG. 27,

"333" has been used to designate both New Tasks in FIG. 25 and Remove in FIG. 27,

"335" has been used to designate both Remove Tasks in FIG. 25 and Left Hand Side in FIG. 27.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement

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drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

9. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 208, 212, Fig. 30.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

10. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 38, 41, 66, 94, 112, 146, 148, 151, 154, 198, 222, 225, 235, 243, 251, 260,



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262, 264, 271, 281, 283, 292, 293, 315, 319, 333, 334, 335, 340, 350, 352, 353, 358, 359, 363.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

11. The disclosure is objected to because of the following informalities:

[0003] Sentence 2 is grammatically improper, [0008] Sentence 3 is grammatically improper, [0023] Sentence 1 is grammatically improper, [0034] Sentence 4 is grammatically improper, [0067] FIG. 29 is duplicated, [0071] Sentence 1 is grammatically improper, [0071] Sentence 1 contains improper use of "a" verses "an", [0072] Sentence 2 is grammatically improper, [0074] Sentence 2 contains improper punctuation, [0081] Sentence 3 is grammatically improper, [0085] Sentence 5 is grammatically improper, [0100] Sentence 4 is grammatically improper, [0102] Sentence 4 is grammatically improper, [0103] Sentence is grammatically improper, [0104] Sentence 7 is grammatically improper, [0108] Sentence 2 is grammatically

improper, [0108] Sentence 3 contains duplication of a word, [0112] Sentence 1 is grammatically improper, [0114] Sentence 9 is grammatically improper, [0114] Sentence 9 contains a typo, [0114] Sentence 13 is grammatically improper, [0115] Characters 166 and 188 are incorrectly referred to, [0116] Sentence 3 is grammatically improper, [0116] Sentence 3 contains improper use of "a" verses "an", [0118] Sentence 2 is grammatically improper, [0119] Sentence 6 is grammatically improper, [0120] Characters 166 and 131 are incorrectly referred to, [0121] Characters 143 and 149 are incorrectly referred to, [0122] Character 141 is incorrectly referred to, [0123] Sentence 2 is grammatically improper, [0123] Character 155 is incorrectly referred to, [0125] Sentence 1 is grammatically improper, [0126] Character 155 is incorrectly referred to, [0132] Sentence 5 contains improper use of "a" verses "an", [0137] Sentence 1 contains improper use of "a" verses "an", [0144] Sentence 1 is grammatically improper, [0146] Sentence 4 is grammatically improper, [0147] Sentence 1 is grammatically improper, [0152] Character 221 is incorrectly referred to, [0154] Sentence 3 is grammatically improper, [0156] Sentence 2 is grammatically improper, [0161] Sentence 1 is grammatically improper, [0166] Sentence 1 is grammatically improper, [0169] Character 242 is incorrectly referred to, [0172] Character 262 is incorrectly referred to, [0173] Character 171 is incorrectly referred to, [0176] Characters 282 and 283 are incorrectly referred to, [0184] Character 317 incorrectly referred to, [0185] Sentence 1 is grammatically improper, [0192] Character 327, 328, and 329 are incorrectly referred to, [0203] Sentence 2 is grammatically improper, [0203] Sentence 2 contains duplication of a word, [0205] Character 360 is

incorrectly referred to, [0209] Figure 26 is incorrectly referred to, [0210] Character 350 is incorrectly referred to, Specification refers to FIG 30 which is not included in the drawings.

Appropriate correction is required.

### ***Claim Objections***

12. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

**Claim 12** is dependent on claim 10, which is dependent on claim 1. Claim 11 separates these claims.

**Claim 13** is dependent on claim 2, which is dependent on claim 1. Claims 3-12 separates these claims.

13. **Claims 2-13** are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. These claims do not include every limitation of the claim on which it depends.

In the present instance, for example, claim 1 teaches a computer-based software system. Claim 2, dependent on claim 1, teaches an embodiment of an inference engine, which is not consistent with the limitation of a computer-based software system. This trend continues throughout the claims.

14. **Claims 3, 7 and 12** are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

15. **Claim 13** is objected to under 37 CFR 1.75(a) as failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention or discovery.

Instead, claim 13 solely addresses the possible uses of the claimed invention.

### ***Claim Rejections - 35 USC § 101***

17. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1, 2, 4, and 9** rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In this case, computer-related inventions whether descriptive or functionally descriptive material are non-statutory categories when claimed as descriptive material *per se* (see *Warmerdam*, 33 F.3d at 1360 USPQ2d at 1759), falling under the “process” category (i.e. inventions that consist of a series of steps or acts to be performed). See

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35 U.S.C. 100(b) ("The term process means, art, or method, and includes a new of a known process, machine, manufacture, composition of matter or material"). Functional descriptive material: "data structures" representing descriptive material *per se* or computer program representing computer listing *per se* (i.e. software *per se*) when embodied in a computer-readable media are still not statutory because they are not capable of causing functional change in the computer. However, a claimed computer-readable *storage* medium encoded with a data structure, computer listing or computer program, having defined structural and functional interrelationships between the data structure, computer listing or computer program and the computer software and hardware component, which permit the data structure's, listing or program's functionality to be realized, is statutory (see MPEP §2106).

18. **Claims 8, 9, 10, 12 and 13** provide for the use of various methods, as listed below, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 8, 9, 10, 12 and 13 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim 8 provides the use of the graphical interface for specifying the templates in claim 6.

Claim 9 provides the use of the computer language for specifying the templates in claim 6.

Claim 10 provides the use of the graphical user interfaces for monitoring and configuring activities of the system of claim 1.

Claim 12 provides the use the event mechanism of claim 1.

Claim 13 provides the use of the inference engine of claim 2.

### ***Claim Rejections - 35 USC § 112***

19. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

21. **Claims 1 and 5** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 teaches “an Agent Context which developers can extend to support alternative data representation schemes”. The scope of how the Agent Context can be extended is indefinite.

Claim 5 teaches “any other configurable components”. The scope what other configurable components comprises of is indefinite.

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22. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, **claim 5** recites the broad recitation "any other configurable components" and the claim also recites "configurable data for selecting, adding and removing services, message transport systems, data encoding/decoding schemes, encryption schemes and software modules called message handlers and generators", which is the narrower statement of the range/limitation.

23. **Claim 6** recites the limitation "the agent lifecycle subsystem within claim 1". There is insufficient antecedent basis for this limitation in the claim.

An agent lifecycle subsystem is not mentioned in claim 1.

***Claim Rejections - 35 USC § 102***

24. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

25. **Claims 1-3, 5, 11 and 13** are rejected under 35 U.S.C. 102(e) as being anticipated by Cheyer et al. (U.S. Patent # 7,069,560) (referred to as Cheyer hereafter).

Regarding **claim 1**, a computer-based software system, called the agent platform, that provides integrated services for the deployment of intelligent software agents comprising (page 1 abstract; deployment, column 3 lines 33-38):

A system for creating (constructing agents, column 7 line 55-67; 804 of Fig. 8), storing (the facilitator provides a global data store for its client agents, column 6 line 48-50; when invoked and upon connection the agent registers with its parent facilitator,



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column 7 lines 24-32), retrieving (a request calls to one or more agent solvables though it is possible to specify one or more agents using an address parameter, column 14 lines 41-59), moving (mobile agents can move to another execution site, column 3 lines 33-38) and removing (mechanisms can direct the removal of objects, column 2 lines 55-59) autonomous software modules called intelligent software agents

An extendible service management subsystem that allows services to be easily added and removed (procedures allowing an agent to add, remove, and modify its solvables, column 12 lines 28-31) from the platform and enables software agents to automatically access these platform services (a client agent initiating a service request and receiving the response to that service request, column 18 lines 22-25, Fig. 9)

A messaging infrastructure that allows developers to add message handling functionality (information about an individual user's preferences to determine the best way of relaying a message through available media transfer application agents, column 8 lines 40-43, 448 of Fig. 6) at three levels, the message transport layer (the agent system can be distributed across a computer network, column 6 lines 27-37), the data encoding (column 4 lines 18-25; the handlers may be coded in whatever fashion is most appropriate, column 12 lines 64-67) and encryption layer (column 17 lines 45-55), and the message semantics layer (ensuring that agents speak the same language and share a common, unambiguous semantics of the vocabulary involves ontology, column 13 lines 63-67; an interagent communication language having the necessary syntax and semantics, column 15 lines 11-15)

An event mechanism, that allows agents to react to changes in their environment (agents can update facts belonging to data solvables, column 20 lines 56-67; for every update to public data changes are automatically replicated to all members of the collaborative session, column 28 lines 25-28). This system provides an Agent Context which developers can extend to support alternative data representation schemes

Infrastructure for allowing agents to interpreting user-defined rules (column 8 lines 37-43) and execute services based upon those rules that involve the incorporation of a software module called an Inference Engine (meta-agents are synonymous to a software module (inference engine) incorporated for allowing agents to interpret user-defined rules and execute services based upon those rules (coordinating the activities of agents), column 7 lines 6-10, 406 of Fig. 4)

Regarding **claim 2**, an embodiment of an inference engine of claim 1 that provides a real-time, rule-based inference system based upon matching data patterns within the agents context (the facilitator, which is supported by meta-agents (inference engine), employs strategies resulting in interaction patterns, column 19 lines 58-62).

Regarding **claim 3**, this method claim is substantially the same as claim 1 and 2; same rationale of rejection is applicable.

Regarding **claim 5**, this method claim is substantially the same as claim 1; same rationale of rejection is applicable.

Regarding **claim 11**, methods for storing and recovering agents from persistent storage as needed for use in the system of claim 1 (when a data solvable is declared to be non-persistent its facts are automatically maintained in this way, column 20 lines 43-55).

Regarding **claim 13**, methods for applying the inference engine of claim 2 to problem involving the maintenance and control of power distribution systems. This method is applicable to a wide variety of situations including but not limited to tracking of materials through various distribution systems whether they are electric power, chemical, oil and gas distribution systems or rail, ship and motor vehicle systems (users are coming to expect deployment of smarter, more autonomous, software applications (agents) for various manifestations, column 2 lines 1-11).

### ***Claim Rejections - 35 USC § 103***

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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27. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

28. **Claims 4, 6, 7, 8, 9, 10, and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheyer in view of Lange et al. (U.S. Patent # 6,163,794) (referred to as Lange hereafter).

Regarding **claim 4**, Cheyer does not explicitly teach providing a means for system developers to specify how service execution requests and parameters should be handled.

Lange, in the same field of endeavor, teaches a method that utilizes a software interface called a service adapter, to provide a generic way for system developers to specify how to handle service execution requests and service execution parameters. Agents use this service adapter to execute the platform services specified in claim 1 (Lange: column 3 lines 24-33).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention, given Cheyer's desire to implement an autonomous software-based system/method utilizing agents to fulfill complex goals and requests, the teachings of Lange, which similarly utilizes agents within a network system, to provide a

programmable means to users to specify how to handle service execution would be readily apparent. One would be motivated to utilize the teachings of Lange because in doing so it would allow Cheyer's system to conveniently be programmed to the users personalized preferences.

Regarding **claim 6**, although Cheyer discloses a common infrastructure for constructing agents (column 7 lines 55-63) and discloses deploying agents (Fig. 10), Cheyer does not explicitly teach using a template mechanism.

Lange teaches a system for constructing intelligent agents, which is used by the agent lifecycle subsystem within claim 1 to create and deploy agents using a template mechanism (column 10 lines 6-19).

Regarding **claim 7**, this method claim is substantially the same as claim 6; same rationale of rejection is applicable.

Regarding **claim 8**, a method for using a graphical interface (Cheyer: 408 of Fig. 6; Lange: column 6 lines 25-28) for specifying the templates in claim 6 (Lange: column 20 lines 33-41).

Regarding **claim 9**, a method for using a computer language for specifying the templates in claim 6 (Cheyer: column 7 lines 53-55; Lange: column 10 lines 15-19).

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Regarding **claim 10**, although Cheyer discloses the use of a User Interface (column 10 lines 10-52), Cheyer does not explicitly teach the specifics of monitoring and configuring system activities using the UI.

Lange teaches a method for using a graphical user interfaces for monitoring and configuring activities of the system of claim 1 (column 3 lines 1-6; column 6 lines 25-28).

Regarding **claim 12**, a method of using the event mechanism of claim 1 to support the graphical user interfaces of claim 10 (Cheyer: 408 of Fig. 6; Lange: 12 of Fig. 1) and support systems for logging system activities (Cheyer: in order for the mega-agents to use domain and application specific knowledge or reasoning there must be a log of some activities; the cache parameter may be used to request local caching, column 7 lines 1-10; column 16 lines 12-17; maintain a record of which agent created each fact of a data solvable, column 20 lines 44-48).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madhu Khanna whose telephone number is 571-270-3629. The examiner can normally be reached on Mon-Thurs 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beatriz Prieto can be reached on 571-272-3902. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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